

30. (Amended) A respiratory mask according to claim 29, wherein the mask frame includes a rim at rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto.

B3 31. (Amended) A respiratory mask according to claim 29, wherein each of the female connector portions includes a generally oblong slot, each generally oblong slot being formed by a first wall structure that is disposed between respective side wall portions and the base portion, a pair of parallel spaced opposing wall structures extending generally perpendicularly from the first wall structure and a second wall structure extending between and connected to the pair of spaced opposing wall structures, the second wall structure being spaced from and generally parallel to the first wall structure, each of the first and second wall structures and the pair of spaced opposing wall structures having an inward end portion and an outward end portion defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture, the outward end portions defining the generally oblong slot therebetween.

32. (Amended) A respiratory mask according to claim 31, wherein the second wall structure includes at least one recess extending therethrough configured to cooperate and receive the at least one resiliently biased locking element of the respective male connector portions, the at least one recess being formed adjacent each generally oblong slot.

See the attached Appendix for the changes made to effect the above claims.

~~Please add the following new claims:~~

B4 --41. A respiratory mask and headgear combination comprising:  
a respiratory mask having a rigid mask frame, adjustable headgear for securing said mask on a patient, said headgear including at least one attachment strap, said mask frame having rigidly secured thereto a first connector portion, and a second connector portion adapted for releasable mating with said first connector portion, wherein  
said first and second connector portions form a press-release connection between said mask frame and said strap;  
one of said first connector portion and said connector portion is a female connector;

the other of said first connector portion and said second connector portion is a corresponding male connector; and

one of said first and second connector portions is integrally formed in one piece with the mask frame.

42. A respiratory mask and headgear combination according to claim 41, wherein the male connector portion includes a resiliently biased cantilever member.

43. A respiratory mask and headgear combination according to claim 42, wherein said cantilever member has a leading end, a trailing end, a locking portion, located intermediate said leading end and trailing end, structured to engage with said first connector portion, and release portion located adjacent said trailing end.

B4 44. A respiratory mask and headgear combination according to claim 43, wherein said release portion comprises a raised portion adjacent a trailing end of said cantilever member.

45. A respiratory mask and headgear combination according to claim 44, wherein a space is provided immediately behind said trailing end of the cantilever member.

46. A respiratory mask and headgear combination according to claim 43, wherein said locking portion comprises at least one lug on a forward surface of said cantilever member, said lug engaging a corresponding socket of said first connector portion.

47. A respiratory mask and headgear combination according to claim 41, wherein said first and second connector portions are structured to be spaced forwardly of the patient's face by said rigid mask frame.

48. A respiratory mask for use with a headgear having a pair of first connector portions thereon, the respiratory mask comprising:

a mask frame;

a pair of second connector portions formed in one piece with the mask frame and being configured to mate with the pair of first connector portions;

wherein one of the first and second connector portions includes a resiliently biased locking element so as to form a press-release connection between the headgear and the mask.

49. A respiratory mask according to claim 48, wherein the mask frame includes a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit.

50. A respiratory mask according to claim 49, wherein the mask frame includes a rim defining a rearward end of the mask frame and configured to allow a cushion to be attached thereto.

51. A respiratory mask according to claim 48, wherein one of the pair of first and second connector portions comprises a pair of female connector portions.

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52. A respiratory mask according to claim 51, wherein each of the female connector portions includes a wall structure that is disposed between respective side wall portions, each of said first wall structures and the side wall portions having an inward end portion and an outward end portion defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture.

53. A respiratory mask according to claim 52, wherein the first wall structure includes at least one recess extending therethrough configured to cooperate and receive the at least one resiliently biased locking element of the respective male connector portions.

54. A respiratory mask assembly comprising:  
a headgear structure including at least one elongate strap, each end of the elongate strap being doubled over to form a loop;

a pair of male connector portions, each of the male connector portions including a leading portion and a cantilevered member extending from the leading portion toward a trailing portion of the male connector portion, the cantilevered member being movable between deflected and undeflected positions and being resiliently biased toward the undeflected position, the cantilevered member including a locking element extending outwardly therefrom;

a mask frame; and  
a pair of female connector portions configured to receive the male connector portions therein.

55. The respiratory mask assembly of claim 54, wherein the mask frame includes a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit.

56. The respiratory mask assembly of claim 55, wherein the mask frame includes a rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto.

57. The respiratory mask assembly of claim 54, wherein each of the female connector portions includes a first wall structure that is disposed between respective side wall portions, each of the first wall structures and the side wall portions having an inward end portion and an outward end portion defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture.

58. The respiratory mask assembly of claim 57, wherein the first wall structure includes at least one recess extending therethrough configured to cooperate and receive the at least one resiliently biased locking element of the respective male connector portion.

59. The respiratory mask assembly of claim 54, wherein the pair of female connector portions are formed in one piece with the mask frame.

60. A respiratory mask and headgear combination comprising a respiratory mask having a rigid mask frame, headgear for securing said mask on a patient, said headgear including at least one attachment strap, said mask frame having rigidly secured thereto a first connector portion, and a second connector portion on said strap adapted for releasable mating with said first connector portion, wherein

said first and second connector portions form a press-release connection between said mask frame and said strap;

one of said first and second connector portions is a female connector;

the other said first and second connector portions is a corresponding male connector;  
and

one of the first and second connector portions is formed in one piece with the mask frame.

61. The respiratory mask and headgear combination of claim 60, wherein said male connector includes a resiliently biased cantilever member depending from a leading end portion of said male connector, said cantilever member including a locking element that releasably engages with a recess formed in the female connector.

62. A respiratory mask for use with a headgear having first connector portions thereon, each of the first connector portions having one of a resiliently biased locking element and a locking element receiving aperture, the respiratory mask comprising:

134 a mask frame including a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion configured in a generally triangular arrangement so as to define an upper vertex portion provided by an intersection of the inclined side wall portions and a pair of laterally spaced lower vertex portions provided by intersections of respective inclined side wall portions and the base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion; an extension member protruding generally radially outwardly relative to the circular gas inlet from the upper vertex, the extension member being configured to be coupled to a forehead support; the extension member providing an arcuate front wall member having a slot formed therein being oriented parallel to the extension member;

the mask frame includes an annular rim extending generally outwardly from rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto;

a pair of second connector portions formed in one piece with the mask frame at respective lower vertex portions thereof, the second connector portions being configured to releasably engage with the first connector portions; wherein

each of the second connector portions includes a generally oblong slot, the generally oblong slot being formed by a base wall member that is disposed between a respective side

wall portion and the base portion of the mask frame and being generally parallel to the front wall portion, a pair of parallel spaced opposing wall members extending generally perpendicularly from the base wall member, and structure disposed between the pair of spaced opposing wall members and being spaced from and generally parallel to the base wall member, the structure includes the other of the resiliently biased locking element and locking element receiving aperture; the base and opposing wall members and the structure having inward end portions and outward end portions defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture; outward end portions of the base wall member and the opposing wall structures defining a generally C-shaped laterally facing surface contained within a single plane.

63. A respiratory mask assembly comprising:

134 a headgear structure including at least one elongate strap, one end of the elongate strap being doubled over to form a loop;

a pair of first connector portions attached to the elongate strap, each of the first connector portions including a trailing portion that has a pair of spaced side portions and a cross bar extending transversely therebetween to define a strap receiving aperture configured to allow the strap to pass therethrough so that the crossbar is disposed within the loop of the strap, each of the first connector portions also including a leading portion that has a pair of longitudinally extending side beams spaced slightly inwardly from the side portions, leading edge portions of the side beams being inwardly tapered toward the leading edges thereof, each of the first connector portions having one of a resiliently biased locking element and a locking element receiving aperture;

a mask frame including a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion configured in a generally triangular arrangement so as to define an upper vertex portion provided by an intersection of the inclined side wall portions and a pair of laterally spaced lower vertex portions provided by intersections of respective inclined side wall portions and the base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion; an extension member protruding generally radially outwardly relative to the circular gas inlet from the upper vertex, the extension member being configured to be coupled to a forehead support; the extension member

providing an arcuate front wall member having a slot formed therein being oriented parallel to the extension member;

the mask frame includes an annular rim extending generally outwardly from rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto;

a pair of second connector portions formed in one piece with the mask frame at respective lower vertex portions thereof, the second connector portions being configured to releasably engage with the first connector portions; wherein

each of the second connector portions includes a generally oblong slot, the generally oblong slot being formed by a base wall member that is disposed between a respective side wall portion and the base portion of the mask frame and being generally parallel to the front wall portion, a pair of parallel spaced opposing wall members extending generally perpendicularly from the base wall member, and structure disposed between the pair of spaced opposing wall members and being spaced from and generally parallel to the base wall member, the structure including the other of the resiliently biased locking element and the locking element receiving aperture; the base and opposing wall members and the structure having inward end portions and outward end portions defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture; outward end portions of the base wall member and the opposing wall structures defining a generally C-shaped laterally facing surface contained within a single plane;

wherein the side beams of each first connector portion are capable of being passed through the oblong slot of the respective second connector portion, such that the side beams are disposed substantially between the base wall member and the structure and are disposed substantially between and parallel to the pair of spaced opposing wall members, the crossbar being disposed proximate and generally parallel to the outward end portions of the base wall member;

the resiliently biased locking elements being movable between deflected and undeflected positions and being resiliently biased toward the undeflected position; and

the locking element receiving apertures being configured to locking engage with the resiliently biased locking elements when in the undeflected position.--